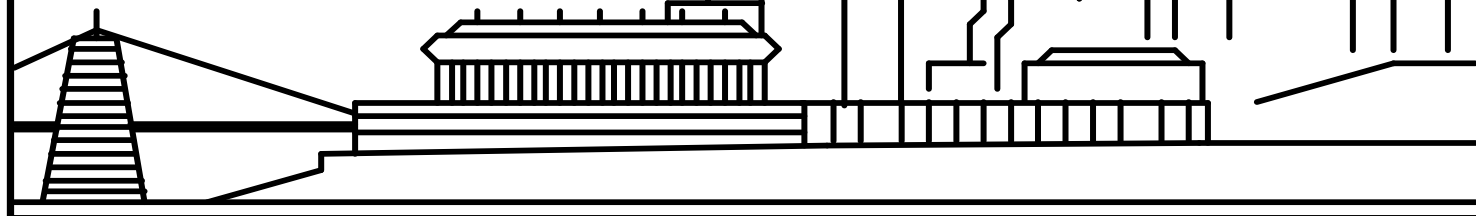




INSTITUTE OF
ELECTRICAL &
ELECTRONICS
ENGINEERS, INC.



NOVEMBER/DECEMBER 1999

IEEE CINCINNATI SECTION NEWSLETTER

DECEMBER MEETING

WEB TOOLS

DATE : December 2, 1999

PLACE : Holiday Inn in Sharonville (I-275 at U.S.42) - See directions below.

TIME:	5:00 to 7:00 PM (Social Time & dinner)	COST: \$10.00 (Members)
	7:00 PM (Program)	\$ 5.00 (Students/Retired Members)
	8:30 PM (Approx. - Adjournment)	\$18.00 (Non-Members)

RESERVATIONS ARE REQUIRED FOR DINNER ONLY !!!

THE CINCINNATI SECTION NOW HAS ITS OWN VOICE MAILBOX for making reservations for meetings or for providing comments or suggestions to **YOUR** Executive Committee.

Please call the Cincinnati Section Voice Mailbox at 629-9380, by **Noon, Tuesday, November 30, 1999** if you plan to attend. Please leave your **Name, IEEE Member Number, and a daytime telephone number.**

ABOUT THE MEETING/SPEAKER: The December 2 program is at the Sharonville Holiday Inn at the intersection of Route 42 and I-275.

The Speaker is Mr. Chris Connaughton, Director of Research and Development for Intelliseek, Inc. Mr. Connaughton has over 15 years experience in software development and management of software development projects.

Intelliseek is a Cincinnati software development with offices in the Sharonville area. The company's principle product is the development and marketing of highly effective internet search engine software.

MEETING LOCATION DIRECTIONS: From I-75 North or South, take I-275 East to the Sharonville (U.S.42) Exit. Turn left at the end of the exit ramp. Turn left onto Hauck Road. The Holiday Inn is 1/2 mile down Hauck Road on the left.

From I-71 North or South, take I-275 West to the Sharonville (U.S.42) Exit. Turn right at the end of the exit ramp. Turn left onto Hauck Road. The Holiday Inn is 1/2 mile down Hauck Road on the left.

January Meeting Preview
Windows 2000 Professional, Windows 2000 Server
and Windows 2000 Advanced Server

On January 20, 2000, Don Sivitz, VP and CEO, and Larry Van Tuyl, VP Sales and Marketing from Full Service Networking will present the significant features and functions of Windows 2000 Professional, Windows 2000 Server and Windows 2000 Advanced Server.

Microsoft announced that the Windows 2000 Professional, Windows 2000 Server and Windows 2000 Advanced Server operating systems are on schedule to release to manufacturing (RTM) in calendar year 1999. Microsoft plans to have general retail, channel and OEM availability of Windows 2000 on Feb. 17, 2000.

In order to get a better idea of the anticipated attendance at the January Meeting, please call the Cincinnati Section Voice Mailbox at 629-9380, by **Noon, Wednesday, December 15, 1999** if you plan to attend. Please leave your **Name, IEEE Member Number, and a daytime telephone number**.

We need a good count of the expected attendance in order to ensure that the location for the meeting is large enough.

CHAIR'S MESSAGE

by Ron Harbaugh, Section Chair

On behalf of the Cincinnati Section, I wish to thank Ron Schapp for his presentation, Solving Power Quality problems, at the October 21 Section meeting. Ron gave one of the most information packed presentations that I have seen in a long time. He dealt out a lot of good information for any person who uses electricity. He touched on power problems every engineer and information technology professional would want to know about. If you weren't there, you missed a good show.

October was a busy IEEE month. More than the usual IEEE activities made October a banner month for the Cincinnati Section. In addition to the Section meeting, the Executive Session, our Senior Membership drive, and local planning sessions, I had the privilege, and the good fortune, to represent the Cincinnati Section at the Sections Congress in Minneapolis. The IEEE conducted a Sections Congress and Regional meetings from October 8 through October 11 in Minneapolis, Minnesota.

The Sections Congress brought in the Chairs and/or Vice-Chairs of over 263 IEEE Sections from every nation. Society chairs, Student Chapter and Pace chairs, along with representatives in other IEEE capacities, were also in attendance. These were very informative meetings. I learned much about the different facets of IEEE. Most of all, I met and talked with engineers visiting from across the nation and the world.

Our meetings and meal tables were like United Nations meetings. The conference staff estimated that 40% of the attendance was from offshore nations. For example, my table partners at the Saturday luncheon were from Saudi Arabia, Kuwait, Egypt, Portugal, Jordan, Minnesota, Michigan, and Indiana. I spoke very briefly with an engineer from Iran: I was surprised to see an Iranian there. No one from Iraq was there. One person from Russia was there. Women accounted for 39 of the 563 delegates (7%).

The opening Keynote speaker Dr., Frank Cerra, VP of Health Science at University of Minnesota, spoke on "Designing Engineering Applications for Medicine in the Next Century". He spoke of some of the

improvements and innovations that engineering has provided the medical discipline offering a better quality of life for the patients. From this point on, he believes, the combined efforts of the engineering and biology disciplines will create a large number of medical advances through creativity and innovation.

Closing keynote speaker was Dr. Julie Shimer, VP and General Manager at Motorola. Dr. Shimer spoke on the subject of "The Engineering Profession in the Next Century". She spoke on the trends of shifting demographics and the changing trends in the engineering discipline. These changes will provide new opportunities and challenges for practicing engineers in the next century.

The program was divided into three tracks:

- Growing Membership
- Serving Professional Needs
- Successful Sections and Chapters

Each track had breakout sessions of tutorials, workshops, and panel discussions. I elected to attend the "Successful Sections and Chapters" track of breakout sessions. The topics of the sessions I attended were:

- Section Leadership Development (tutorial and workshop)
- Working with section volunteers
- Section Organizational structure
- Section management
- Section Long Range planning
- Using IEEE Program Resources for Sections.

All good subjects with a wealth of information. What I found useful about attendance at these sessions is the concepts will be useful in applications in my occupation as well as other areas where I am involved.

The last item of business was setting the list of recommendations for changes derived in the Region Caucuses. Forty recommendations were presented to the IEEE Board of Directors. Delegates voted to set the priority of the recommendations. The recommendations addressed issues such as membership retention, information technology improvements, and leadership programs. The recommendations are printed on the IEEE web page at www.ieee.org/sc99.

Again, thanks to everyone in the Cincinnati Section for allowing me to be the Section's representative in Minneapolis.

UPCOMING SECTION MEETINGS AND TOPICS

January 20, 2000 - Section Meeting; Topic will be " WINDOWS 2000 "

January 27, 2000 - Executive Committee Meeting - James Tavern in Blue Ash

February 24, 2000 - Section Meeting (ESC Banquet)

March 23, 2000 - Section Meeting; Topic will be "Doppler Radar "

April, 2000 - Section Meeting; Topic will be "PACE "

May, 2000 - Section Meeting; Topic will be " Appliance Applications – LINUX ".

Detailed information about the Section Meetings will be included in that month's newsletter. If you are interested in attending an Executive Committee Meeting, please contact either Ron Harbaugh or Jack Beckmeyer (see last page for phone numbers).

Senior Membership Application Workshop Is a Success

By Jim Everly, Vice-Chairman & PACE Representative

Eleven IEEE members took advantage of the Cincinnati Section sponsored Senior Member Initiative workshop on Saturday, October 23, 1999. The workshop was held at the University of Cincinnati's College of Applied Science. A volunteer group of Cincinnati Section IEEE Senior Members and IEEE Fellows namely, Dr. Ernest Hall (F), Mr. Joseph R. Morrison (SM), and Mr. Richard J. Reiman (SM) assisted section members with application forms and references. Members of the College of Applied Science IEEE student branch assisted with registration. The application forms were submitted to the IEEE Admissions and Advancement Committee in Piscataway, NJ, where a final review will be conducted.

IEEE Senior Member grade is the highest IEEE membership grade that can be obtained by application. Often-cited reasons for applying include recognition of accomplishments by peers, professional advancement, and personal satisfaction. Section members still interested in elevating their current member status to Senior Member grade should contact Jim Everly at j.everly@ieee.org.

For more information on IEEE senior member grade or to receive a senior member application kit, send an e-mail request to "application-request@ieee.org" or contact the IEEE by phone at 800-678-4333. For your use, a copy of the IEEE Senior Member Grade Reference Form is included elsewhere in this newsletter.

NEW MEMBERS

The following individuals are IEEE members who are new to our Section:

DONALD L. BYRKETT	BEN D. MAXSON
WILLIAM P. CAMPBELL	NEIL D. MOLYNEAUX
ROD J. COPE	KENNETH A. MORI
MICHAEL J. COSSENTINO	TIMOTHY MYERS
MUNEHIRO DOE	SHARBEL E. NOUJAIM
AARON W. FIFAREK	JOSEPH H. NURRE
SUMEET GOYAL	NIREN K. PATEL
DOUGLAS G. HALDEMAN	J. DEREK RUTTEN
MANISH HANDA	VAIRA SARAVANAN
DANA E. HOFFMAN	VINOO N. SRINIVASAN
KAMAL N. MAJEED	ANTHONY H. WILLIAMITIS

We wish to extend our welcome to all of our Section's new members!!!

Architects of the Net of Nets - Part 4

by Dick Reiman, Historian

By 1972, the ARPA network had been accepted as a reliable large scale network. Robert Kahn and Vincent Cerf had together been the catalyst to its success. Bob Kahn, as a program manager at ARPA was leading advancements in satellite radio packet networks used by the military. The solution found to connecting radio networks was to be applicable to connecting any dissimilar network. This solution could then be applied to ARPA, and connections to network unrelated to ARPA such as a phone network.

Kahn asked Cerf, currently an electrical engineering professor at Stanford University, to collaborate; Cerf immediately agreed. The task was to link disparate networks. Kahn knew the networking and Cerf understood the programming protocols of the host computers, which connected the packet switching IMP to the site computer. Both knew enough of each other "turf" to discover flaws in the logic either proposed. A guiding principle was that no changes were to be needed in participating networks.

The solution was to place a gateway computer between networks. Now known as a "router", its job was to adjust arriving packets to the requirement of its network. This could mean repackaging incoming 500 bytes into two 250-bytes lengths, before routing them to their destination.

The basic design had to be simple. Considered were two basic categories: host and network functions. The protocol between hosts must not only enable end-to-end communication, but also to verify packet arrivals and prevent congestion by limiting arrival packet rates. Their two-part addressing scheme specified the network and individual host on the network. The first part told the sender's gateway the next gateway enroute to the destination network. Once inside the intended network, the host address was used to route the packet to the destination.

Kahn and Cerf had arrived at the definition of the Internet. Their paper on this subject, covering ideas for Transmission Control Protocol (TCP), was presented to the International Network Working Group at the University of Sussex, Brighton, England in September 1973. Later, TCP became TCP/IP. Kahn funded three contracts to implement the new design. One went to Cerf at Stanford, second to Ray Tomlinson at BBN, and to Peter Kirstein at University College, London.

The moment for testing was at hand with little media attention given to the event. On Nov. 22, 1977, Cerf's crew demonstrated a triple-network Internet. Radio receivers dotted the hills around Menlo Park, so that a moving van with a packet radio terminal could send Internet packets into the ARPANET's land lines and through satellites to Norway and University College, London. The packets were returned through the Atlantic packet satellite network to West Virginia back into the ARPANET where they hopped to Machine C at UCLA's Information Science Institute in Los Angeles. The route crossed the Atlantic twice, went coast to coast, and didn't miss a beat. It proved that it was possible to drive down a highway and compute on machines in London or Los Angeles.

To the military, it demonstrated that mobile units in the field could tap resources in ARPANET in the U.S.

IEEE NEWS

IEEE FORMS AN ALLIANCE WITH FIRST

MANCHESTER, NH, September 22, 1999 - The IEEE became a technical co-sponsor of FIRST (For Inspiration and Recognition of Science and Technology) today at a ceremony at the FIRST Place Science and Technology Facility in Manchester, NH. Dr. Arthur Winston, Vice President of the IEEE Educational Activities Board, was on hand to sign the agreement with Dean Kamen, Founder of FIRST. This alliance supports the IEEE's strategic goal to "enhance the quality of instruction and foster student interest in mathematics, engineering, and science."

The IEEE has now joined other organizations such as ASME and NASA in helping to provide technical expertise and mentors for students who participate in FIRST programs. FIRST Founder Kamen said, "We look forward to collaborating with the IEEE to help expand our programs to provide young men and women with experiences that will prepare them for real world work in science and technology fields."

(Continued on Page 9)

IEEE 2000 CINCINNATI SECTION BALLOT
Election of Officers for Term
Beginning 1/1/2000 and Ending 12/31/2001

MEMBER - AT - LARGE

☐

Mark Strong

☐

Write - In _____

Please vote for only one candidate for Member-at-Large. Resumes of the candidate can be found below. Please return the ballot by:

JANUARY 1, 2000

Return the complete ballot to:

Cinergy
PO Box 960, Room 552 Annex
Cincinnati, Ohio 45201
Attention: J. R. Morrison

Signature: _____

IEEE Member Number: _____

RESUME OF CANDIDATE

MEMBER-AT-LARGE (MARK STRONG)

BSEE Purdue University 1990, Co-op Program, Cincinnati Bell ComQuest Co., Telecom Test Engineer 1986-90. Upon graduation, began career with ComQuest testing telephone carrier equipment and related plug-ins to Bellcore specifications for various manufacturers. Moved to Cincinnati Bell Telephone's Service Cost department and performed switching systems service cost studies for PUCO tariff filings. Since 1995, has been an Advanced Intelligent Network Service Developer for CBT's Network Architecture Planning Group responsible for design, development, and deployment of AIN services on the Lucent AINet platform.



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IEEE SENIOR MEMBER GRADE REFERENCE FORM

(Please Print)

Name of Applicant: _____

A. Do you know the candidate professionally? Yes ☐ No ☐

If yes, how long? _____ years.

What is your professional relationship to the candidate? _____

B. Has the candidate been in active professional practice for at least 10 years?

Yes ☐ No ☐ Total years in the profession: _____

C. In your own words explain how the candidate has "significantly" performed his/her professional duties for at least five years.
(Please see back of this form for examples of significant performance).

D. Please indicate whether you consider the candidate to be:

1. ☐ Well Qualified 2. ☐ Qualified 3. ☐ Marginally Qualified 4. ☐ Not Qualified

Please print or type information below:

Name of Reference: _____

IEEE Membership Grade: _____ IEEE Membership Number: _____

Signature of Reference: _____ Date: _____

EXAMPLES OF SIGNIFICANT PERFORMANCE TO QUALIFY FOR ELEVATION TO IEEE SENIOR MEMBER GRADE (at least 5 years)

Five years of significant performance:

- A. Substantial engineering, responsibility or achievement
- B. Publication of engineering or scientific papers, books or inventions
- C. Technical direction or management of important scientific or engineering work with evidence of accomplishment
- D. Recognized contributions to the welfare of the scientific or engineering profession
- E. Development or furtherance of important scientific or engineering courses in a "recognized education program"
- F. Contributions equivalent to those of (a) to (e) above in areas such as technical editing, patent prosecution or patent law, provided these contributions serve to advance progress substantially in IEEE designated fields.

Many prospective applicants make the mistake of assuming that "significant performance" requires special awards, patents or other extremely sophisticated technical accomplishments; such is not the case. Substantial job responsibilities such as team leader, task supervisor, engineer in charge of a program or project, engineer or scientist performing research with some measure of success (papers), or faculty developing and teaching courses with research and publications, all are indications of significant performance.

Ten years of professional practice: The A&A Committee evaluating your application will count the years you have been in professional practice. Your educational experience is credited toward that time as follows: 3 years for a baccalaureate degree in an IEEE-designated field; 4 years if you hold baccalaureate and masters degrees; and five years for a doctorate.

IEEE NEWS

(Continued from Page 5)

FIRST sponsors the nationally recognized FIRST Robotics Competition each year for high-school students throughout the United States. Teams of students and engineers work together to brainstorm, design, construct, and test their "champion robots" to see if they meet the assigned challenges. The student teams then compete in a spirited, no-holds barred competitions, complete with referees, cheerleaders, and time clocks. The competition's National Championship takes place each spring at Epcot of WALT DISNEY WORLD Resorts in Orlando, FL. Other programs include a new junior version of the Competition called FIRST LEGO League for middle and junior high school students, and a variety of hands-on, science-based summer camps and after school programs at FIRST Place for students ages 10-13.

As a co-sponsor of FIRST, the IEEE will encourage its members to loan their technical expertise to students as they construct their projects for the robotics competition. There are many ways IEEE members can participate in the IEEE/FIRST collaboration. These include:

- volunteering to be a technical consultant for a local FIRST team.
- asking their employer to become a corporate sponsor by providing financial assistance to a local FIRST team
- assisting FIRST competition coordinators with the planning and development of an event in their region.
- spreading the word about the FIRST Robotics Competition to local schools and IEEE student branches.
- urging their own children to join a local FIRST team.

To speak with a representative from the IEEE about getting involved with FIRST activities, IEEE members should contact Christy Bouziotis at <c.bouziotis@ieee.org>. To find out more about FIRST, visit them on the Web at <www.usfirst.org>.

FIRST is a non-profit organization started by Kamen in 1989 whose mission is to generate interest in science and engineering among today's youth. FIRST brings together an alliance of industry, education, and government organizations. Kamen, an entrepreneur and inventor with over 100 patents, is President of DEKA Research and Development Corporation. For more information about FIRST, visit their web site at <www.usfirst.org>.

PRESIDENT APPROVES FY 2000 ENERGY APPROPRIATIONS

On Sept. 30, President Clinton signed into law the annual appropriations bill for energy and water development, which includes funding for key science and technology programs of the Department of Energy (DOE). Funding for DOE energy supply R&D programs will decline by 1.5% to \$367 million (from \$373 million in FY 1999). The largest cut was in the area of solar and renewable energy research, which drops 7% to \$276 million. Nuclear energy research increases by nearly 20% to \$91 million. In the DOE science budget, funding holds steady (up just 0.1%) at \$2.65 billion. Fusion energy research climbs 11.6% to \$247 million. Support for computational and technology research drops 16.3% to \$131 million, and a funding request for DOE's Scientific Simulation Initiative (DOE's share of the President Clinton's IT2 research initiative) was denied. The Stockpile Stewardship Program, however, grows by 6.4% to \$2.3 billion, including \$316 million (a 5% increase) for an Accelerated Strategic Computing Initiative to develop the next generation of teraflop computers, which would be used to simulate nuclear explosions. The bill also approves a plan to move DOE's nuclear weapon laboratories into a new National Nuclear Security Administration.

MARS ORBITER FAILURE ATTRIBUTED TO MEASUREMENT UNITS ERROR

NASA announced (Sept. 30) that the failure of the Mars Climate Orbiter, which apparently burned up when it dipped too low into Martian atmosphere while attempting to establish orbit, was attributable to human error. Specifically, navigational commands in conventional English measurement units provided by Lockheed Martin's orbiter space craft team could not be communicated to NASA's flight team at NASA's Jet Propulsion

Laboratory, which was using metric units. NASA declined to blame Lockheed Martin, noting that the inconsistency in measurement systems should have been caught during the planning stages. The announcement prompted a press release from House Science Committee chair James Sensenbrenner, which says simply: "I'm speechless."

NSF OFFERS FY 2000 INFORMATION TECHNOLOGY RESEARCH FUNDING

The National Science Foundation is soliciting proposals for up to \$105 million in FY 2000 grant funding for fundamental research in information technology, encouraging in particular research spanning information technology and scientific applications. Focus areas for research include: software (creation, reliability, security and/or privacy), information technology education and workforce, human-computer interface, information management, advanced computational science, scalable information infrastructure, social and economic implications of information technology, and revolutionary computing technologies. Letters of intent are due by Nov. 15, with grants to be awarded in Sept. 2000. For more information, consult the announcement at:

<http://www.nsf.gov/pubs/1999/nsf99167/nsf99167.htm>

In addition to this announcement, NSF is expected to issue a separate request for proposals for a terascale computer facility for high-end science and engineering.

NSF ANNOUNCES "ACTION AGENDA FOR ENGINEERING CURRICULUM"

The National Science Foundation has ear-marked \$5 million dollars in FY 2000 funding to support ten grants for development of innovative engineering curricula. Emphasis will be given to proposals that would expose students to major technology developments and/or emerging areas of engineering, or provide structured early career support. Teaming of faculty members from different disciplines or different institutions is encouraged, as well as the use of the World Wide Web to enhance impact. Full proposals are due by January 31, 2000 with award announcements anticipated in June 2000. For more information, consult the announcement at:

<http://www.nsf.gov/pubs/1999/nsf99169/nsf99169.txt>

FEDERAL UNDERFUNDING OF BASIC RESEARCH IS ERODING TECHNOLOGY TRANSFER AND DRYING UP THE TALENT POOL, WITNESSES TELL A HOUSE SUBCOMMITTEE

WASHINGTON, D.C., September 30, 1999 - Federal underfunding of basic research is eroding technology transfer and drying up the talent pool, witnesses tell a House subcommittee. Innovation, the ability to exploit and develop discoveries, drives the U.S. economy, but that economic engine will begin to sputter and eventually stall if the downward spiral in federal support for university research and training doesn't end soon, witnesses warned members of the House Science Committee's Basic Science subcommittee Tuesday.

"We are severely and critically underinvesting in basic research," testified Rita Colwell, director of the National Science Foundation. Asked by the panel's senior Democrat, Rep. Eddie Bernice Johnson of Texas, what the United States should do in the face of rising R&D investments by other nations, Colwell responded that "we simply are not making the investment. Proportionally we are investing less than a start-up would invest in its next product."

Indeed, the United States is "living off of its historical investment" in research, and the talent pool is dropping, said Scott Stern, a professor at the Sloan School of Management at the Massachusetts Institute of Technology and contributor to a Harvard/MIT study that tracks the relationship between government support of R&D and the level of innovation in the economy.

All four witnesses appearing before the subcommittee chaired by Rep. Nick Smith, R-MI, pointed to graduate education as the best kind of technology transfer. Students carry technical knowledge away from their education and they "internalize ideals of the scientific system--ideals of basic research--that last for a lifetime," said University of Michigan Vice President for Research Fawwaz Ulaby.

Our percentage of federal R&D funding compared to national wealth is stagnant, and the downturn is only partially compensated by private-sector investments, Stern said. Reverse the decline in federal spending, draw in private money, rebuild the talent pool--with an emphasis on K-12 education, and take the lead in creating new intellectual protection tools that encourage innovation, Stern advised the subcommittee.

Because of its investment in biomedical research, the United States leads the world in drug development, said Laurence Hirsch, vice president for public affairs at Merck Research Laboratories. "That success reflects the synergy of government, academia and industry," said Hirsch. And that "success leads to improved health worldwide and U.S. jobs. Winning Nobels is not the goal," social and economic development serve the public good, he said.

Testimony at this week's hearing echoed the findings of a report from the Council on Competitiveness released a year ago that found the United States losing its competitive edge in global R&D competition.

An audio/video transcript of the hearing on "The Impact of Basic Research on Technological Innovation and National Prosperity" is posted on the subcommittee's web site at [http://www.house.gov/science/106_hearing.htm#Basic_Research].

IEEE PUBLISHES NEW COMPENDIUM ON ADJUSTABLE SPEED DRIVES

PISCATAWAY, NJ, October 26, 1999 - The IEEE announces the release of Techniques For Proper Selection and Applications of Adjustable Speed Drive Systems, a compendium of over seventy of the most current and classic articles on adjustable speed drives (ASDs). Today, rapid technological changes in the field of ASD systems require that engineers access information quickly and effectively.

These selected readings provide up-to-date information on recent advances in the selection and application of ASD systems, offering under one convenient cover a choice selection of ASD papers. Areas covered include:

- Historical review and future trends of ASDs
- Overview of power quality issues and considerations
- Impact of system supply voltage transients and sags
- Overview of induction motor interactions in ASD systems
- Installation considerations for ASD systems
- Motor insulation withstand capability issues
- Motor shaft voltages and resulting bearing current issues

Expert Wayne Stebbins has carefully selected the most significant and valuable articles current to ASDs. With over thirty year of experience, Mr. Stebbins has been responsible for power distribution projects, utilities testing programs, and facility energy management processes; while currently focusing on the technical aspects of projects in the areas of power distribution, adjustable speed drive system applications, energy management systems and power quality issues.

To order Techniques for Proper Selection and Applications of Adjustable Speed Drives - List price \$69.95; IEEE Member price \$49.95 - use product number SR113-QVE. Order from the IEEE Customer Service Department, 445 Hoes Lane, PO Box 1331, Piscataway, NJ 08855-1331, USA; e-mail: customer-service@ieee.org; phone: 1.800.678.4333; Web: <http://www.ieee.org/eab>

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NOVEMBER/DECEMBER 1999
IEEE CINCINNATI SECTION NEWSLETTER



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